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INSTRUCTION MANUAL
PCE-TG250

TECHNICAL DATA

DISPLAY	128X64 PIXEL LCD WITH BACK LIGHT
MEASURMENT RANGE	
- STANDARD	1.0 mm TO 250 mm IN STEEL DEPENDING OF THE PROBE
- THROUGH COATING	4 mm – 18 mm
TOLERANCE	+/-0.02 mm IN STEEL
DISPLAY RESOLUTION	0.01 mm (Less than 100.0 mm) mm (over 100 mm)
BULIT-IN STANDARD BLOCK	4.00 mm
VELOCITY RANGE	1000-9999 m/s
POWER	2 EA. 1.2 V AAA BATTERY
OUTSIDE DIMENSION	149X73X32 mm
WEIGHT	350 g

FEATURES:

AUTOMATIC SELF CALIBRATION
COUPLANT INDICATOR
AUTOMATIC POWER OFF DEVICE
HIGH-LOW LIMIT ALARM
LCD BRIGHTNESS ADJUST
THROUGH COATING CAPABILTY
THROUGH COATING MEASUREMENT
500 DATA READING STORAGE WITH DIFFERENT 5 MEMORY FILES
LOW BATTERY INDICTOR

INTRODUCTION OF THE GAUGE

OPERATING PROCEDURE

STANDARD MODE:

1. INSTRUMENT AND PROBE

PLUG THE PROBE TO THE THICKNESS GAUGE CONNECOTR. PRESS ON/RST KEY, HEAR BI-BI SOUND THEN LCD DISPLAY TURN ON AND DISPLAY THE LAST SET VERLOCITY. DISPLAY AS FOLLOWING

THICKNESS GAUGE SYSTEM SETTING
SYSTEM SETUP

PRESS GAUGE ON/RST KEY TURN ON THE GAUGE, LCD WILL DISPLAY

PRESS MENU KEY 2 TIME. THEN PRESS ENTER KEY ↵, DISPLAY FOLLOWING

System Setup
Function Setup
Outside alarm
[Enter] to select
↓to down

PRESSS ENTER KEY ↵ AGAIN, DISPLAY FOLLOWING SCREEN

Units	METRICS	(CAN PRESS ↵ SELECT INCH OR METRICS UNIT)
Resolution	HIGH	(HIGH=HIGH RESOLUTION DISPLAY 0.01 mm)
Min Capture	ON	(CAPTURE MIN MEASUREMENT THICKNESS)
2-Point CAL	OFF	(OFF=SINGLE POINT AND ON=2-POINT CAL)
LANGUAGE	ENGLISH	

↓to down

USE ▲ ▼ KEY MOVE HIGH-LIGHT CURSOR UP AND DOWN. USE ENTER KEY TO CHANGE THE SETTING

AFTER SETTING COMPLTED, PRESS MENU KEY 2 TIMES BACK TO THE MEASUREMENT FUNCTION

FUNCTION SETUP

PRESS GAUGE

KEY TURN ON THE GAUGE, LCD WILL DISPLAY

PRESS

ENTER 2-TIMES, PRESS ENTRY KEY, USE KEY MOVE HIGH LIGHT CURSOR TO **FUNCTION SETTING**, PRESS THEN USE KEY MOVE HIGH-LIGHT CURSOR DOWN TO THE FOLLOWING DISPLAY

Erase file
Erase all data
Erase cal data
[ENTER] to select

UP AND DOWN LIMIT ALARM SETTING

PRESS GAUGE

KEY TURN ON THE GAUGE, LCD WILL DISPLAY

PRESS MENU KEY 2 TIME. PRESS KEY UNTIL HIGH-LIGHT CURSOR MOVE TO THE OUTSIDE ALARM, THEN PRESS ENTER KEY, DISPLAY FOLLOWING

USE KEY TO ADJUST THE LOW LIMIT THICKNESS,

THEN PRESS ENTER TO SET HIGH LIMIT THICKNESS

AFTER SETTING, PRESS MENU 2-TIMES BACK TO THE MEASUREMENT FUCTION. WHEN THICKNESS MEASUREMNT OVER THE RANGE 0.10 mm – 200.0 mm, THE THICKNESS GAUGE BEBER START TO ALARM.

2. VELOCITY SETTING

IF USER ALREADY KNOW THE MATERIAL VELOCITY. USER CAN USE MANUAL ADJUST THE VELOCITY FROM REFERENCE CHART. THE GAUGE CAN STORED 5 DIFFERENT MATERIAL VELOCITY

IF THE DISPLAY VELOCITY IS NOT REQUIRED, THEN PRESS VEL

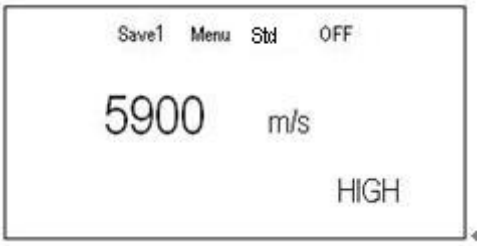
KEY SELECT THE VELOCITY FROM MEMORY, THEN PRESS ENTER KEY.

IF THE 5 STORGED VEL ARE NOT THE TEST MATERIAL VEL. THEN USE KEY ADJUST THE VEL DISPLAY UNTIL MEET REQUIRED VEL. THEN USER CAN PREE ENTER KEY STORE THIS VEL FOR MEASUREMENT THE SAME MATERIAL NEXT TIME

IF THE VEL IS UNKNOWN, USE THE TOOLS MEASURMENT THE TEST SPECIMEN THICKNESS. PUT PROBE ON THE SPECIMEN. USE KEY ADJUST THE THICKNESS DISPLAY SAME AS TOOLS MEASUREMNT.
PRESS VEL TO GET DISPLAY OF SPECIEMN VEL AND STORED THE VEL TO THE MEMORY.

PRESS VEL

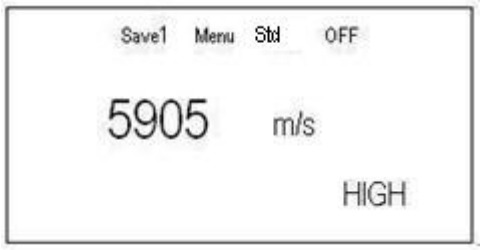
KEY ENTER VEL SETTING



PRESS VEL

KEY AGAIN TO SELECT THE 2'NDSTORED VEL

USE KEY ADJUST THE VEL DISPLAY UNTIL MEET REQUIRED VEL



3. INSTRUMENT CALIBRATION

IT'S NECESSARY TO CALIBRATE WHEN CHANGE THE PROBE OR TURN ON THE INSTRUMENT. DURING THE OPERATING, OPERATOR NEEDED FREQUENCY RETURN BACK AND CALIBRATION AGAIN.

SINGLE POINT CALIBRATION

SET THE VEL TO 5900 m/s, PUT SOME COUPLANT TO THE GAUGE SIDE BLOCK. PRESS THE PROBE TO THE BLOCK, WAIT UNTIL COUPLANT INDICATOR NOT FLASH. PRESS

CAL KEY, THE DISPLAY WILL SHOW 4.00 mm.

TWO POINT CALIBRATION

TO GET MORE PRECISION MENSURMENT, TWO POINT CALIBRATION IS NECESSARY GET A STEP BLOCK (AT LEAST TWO DIFFERENT THICKNESS AND COVER THE MEASURMENT RANGE.

PRESS MENU TWO TIME UNTIL CURSOR TO THE MENU PRESS ENTER , ENTER THE SYSTEM SETTING MENU AS FOLLOWING

System Setup
Function Setup
Outside alarm
[enter] to select
↓to down

PRESS TO System Setup, then press key

PRESS ▼ KEY UNTIL DISPLY HIGH LIGHT AS FOLLOWING

Resolution: HIGH
Min Captyre: OFF
2-Point CAL: OFF

[enter] to select
↑TO UP ↓to down

PRESS ENTER ↵ KEY CHNANGE THE 2-POINT CAL: OFF INTO ON

Resolution: HIGH
Min Captyre: OFF
2-Point CAL: ON

[enter] to select
↑TO UP ↓to down

PRESS MANUAL BACK, AND THEN PRESS MENU KEY AGAIN TO THE DISPLAY SCREEN.

PUT COUNPLAT ON THIN BLOK, MOVE THE PROBE ON THE THIN BLOCK. PRESS CAL CAL KEY, DISPLAY SHOWTHE THIN BLOCK THICKNESS.

USE ▲ ▼ KEY TO ADJUST THE THIN THICKNESS DISPLAY UNTIL MEET BLCOK THICKNESS VALUE. THEN PRESS CAL KEY AGAIN. DISPLAY

USE ▲ ▼ KEY TO ADJUST THE THICK THICKNESS DISPLAY UNTIL MEET BLCOK THICKNESS VALUE. THEN PRESS CAL KEY AGAIN. COMPLETE THE 2-PINT CALIBRATION SETUP.

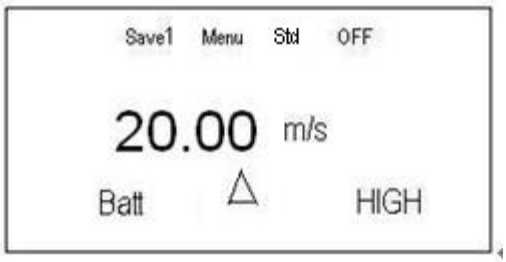
4. THICKNESS MEASUREMENT

AFTER CALIBRATE AND SETUP THE THICKNESS GAUEG, PUT SOME COUPLANT ON THE TEST SPECIMEN. MOVE AND PRESS THE PROBE ON THE SPECIMEN, LCD NOW DISPLAY THE ACTIUAL THICKNESS MEASUREMENT READING.

WHEN PROBE AND TEST SPECIMEN COUPLANT IS GOOD, THE DISPLAY WILL SHOW COUPLANT GOOD INDICATOR. WHEN LIFT-OFF THE PROBE THE THICKNESS DISPLAY NO CHANGE BUT COUPLANT INDICTOR DISAPPEAR.

5. LOW BATTERY INDICATOR

WHEN THICKNESS GAUGE POWER WAS NOT ENOUGH, THE LOW BATTERY INDICATOR WILL DISPLAY ON THE LEFT BOTTOM ON DISPLAY LCD.



6. TURN POWER OFF THE THICKNESS GAUGE

PCE-TG250 HAS 2 WAYS TO TURN OFF THE POWER.

6.1 AUTO TURN OFF

- IF THE THICKNESS GAUGE WAIT 3 MIN NOT MEASUREMENT, THE THICKNESS GAUGE WILL TURN-OFF AUTOMATICALLY

6.2 MANUAL TURN OFF

- PRESS MENU UNTIL HIGH LIGHT TO OFF INDICATOR, PRESS KEY TO TURN OFF THE THICKNESS GAUGE

7. THICKNESS DATA STORAGE AND RECALL

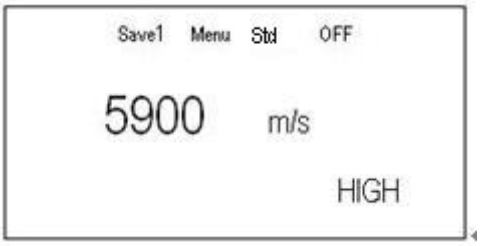
7.1 THICKNESS DATA STORAGE

THE THICKNESS DATA CAN BE STORGED WITH 5 DIFFERENT FILE NAME. EACH FILE NAME CAN

STORGED 100 READING.

PRESS

KEY, MOVE DISPLAY LCD HIGH LIGHT CUSOR TO SAVE1.



PRESS KEY CAN SELECT SAVE1, SAVE2, SAVE3, SAVE4, SAVE 5 FILE NAME

PUT PROBE ON THE SPECIMEN GET READING1, PRESS

KEY. THE LEFT BOTTOM SIDE WILL SHOW MEMORY, THIS MEAN, THE READING 1 ALREADY STORAGED IN THE FILE 1. CONTINOUS TO DO THE STORAGE OF READING 2.3.4…..

7.2 THCINESS DATA RECALL

PRESS

KEY, MOVE DISPLAY LCD HIGH LIGHT CUSOR TO SAVE1.

PRESS KEY CAN SELECT SAVE1, SAVE2,SAVE3, SAVE4, SAVE 5 FILE NAME

PRESS

KEY. THE LCD DISPLAY

No.001 IS THE FILE NAME

Total: 005 MEANS FILE NAME No 1 HAVE 5 STORAGE DATA, USE KEY TO CHANGE THE POINT READING

DELETE

DELETE THE SINGLE POINT READING

ENTER THE RECALL CONDITION

USE KEY TO CHANGE THE POINT READING, SELECT THE POINT WANT TO DELETE. PRESS KEY, DELETE THIS POINT.

DELETE THE WHOLE FILE

PRESS GAUGE KEY TURN ON THE GAUGE, LCD WILL DISPLAY

PRESS ENTER 2-TIMES, PRESS ENTRY KEY, USE KEY MOVE HIGH LIGHT CURSOR TO **FUNCTION SETTING**, PRESS THEN USE KEY MOVE HIGH-LIGHT CURSOR DOWN TO THE FOLLOWING SCREEN.

Erase file
Erase all data
Erase cal data
[ENTER] to select

PRESS , THE SCREEN DISPLAY

Press [ENTER] to confirm
Press [MENU] to cancel

AFTER PRESS KEY, IT WILL SHOW ERASE FILE 1

8. BACK LIGHT

INSTRUMENT OFFER LCD BACK-LIGHT DEVICE FOR DARK AREA READING.

PRESS KEY TURN ON THE LCD BACK LIGHT. PRESS AGAIN KEY CAN TURN OFF THE BACK LIGHT

THROUGH COATING MODE

PCE-TG250 CAN MEASURMENT THE THICKNESS WITHOUT MOVE THE COATING.

PRESS

KEY TURN ON THE GAUGE.

PRESS

KEY MOVE THE HIGH LIGHT CURSOR TO Std. PRESS KEY TO CHANGE INTO Coat. NOW THE GAUGE UNDER THOUGH COATING MEASURMENT MODE

PUT A SHIM ON THE 4 mm CALIBRATION BLOCK. PUT COUPLANT AND PROBE. PRESS THE

KEY, CALIBRATED THE GAUGE DISPLAY TO 4.00 mm

THE REST OPERATING PROCEDURE ARE SAME AS THE STD MODE.

In this direction will find a vision of the measurement technique:
http://www.industrial-needs.com/measuring-instruments.htm

NOTE: "This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases)."